

# CASE STUDY 10

## CHOICE HOTELS INTERNATIONAL

Within the hospitality industry, there has traditionally been a division between networks that serve guest functions and those that serve operations and administration, both with respect to data transmission and voice transmission. In recent years, most hotel and motel chains have moved in the direction of consolidating multiple functions on networks that used to be dedicated to one use. Tighter integration of voice and data and of guest and operations/administration networking is a fast-growing trend. Choice Hotels International ([www.choice.com](http://www.choice.com)) is a good example of this trend.

Choice Hotels International (NYSE: CHH) is one of the largest and most successful lodging companies in the world. It franchises more than 6,100 hotels, representing more than 490,000 rooms, in the United States and more than 30 countries and territories. The company's best known brands include Comfort Inn, Comfort Suites, Quality, Sleep Inn, Clarion, Cambria Suites, MainStay Suites, Suburban Extended Stay Hotel, Econo Lodge and Rodeway Inn.

### **In-House Networking Functions**

Choice supports two distinct networking functions. A central Web site enables customers to reserve rooms at any Choice franchise

accommodation. The central reservation system, known as Profit Manager, automatically finds the most appropriate hotel based on location, price range, or standard. Individual hotels also take bookings, so there needs to be a way for hotels and the central system to remain synchronized.

Choice networks also support its franchisees. Choice is in fact a relatively small company in terms of personnel (about 2000 employees) and does not own or operate any hotels. All of the establishments under its brand names are independently owned and pay Choice licensing fees and a royalty on all sales. In return, they receive a variety of services, including marketing, quality control, and inventory management. Many of these services are offered via network, such as allowing managers to order supplies online and check booking status. This support network is similar to a corporate intranet but has a higher reliability requirement. The 6100 hotel managers are, in effect, Choice's customers, not employees. Thus, the standards for reliability and performance of the network are high.

In the late 1990s, Choice began to focus on providing a state-of-the-art global reservation system. At this point, the synchronization of local and online reservations was done manually. Each hotel provided Choice with a fixed block of inventory to sell over the central reservation system, with an average of 30% of capacity. Once that 30% was sold, Profit Manager listed the hotel as fully booked, even though there might be plenty of rooms available from the other 70%. The reverse problem also occurred: If the local reservation system had sold all available rooms except those assigned to Choice, the local staff had to refuse additional customers or overbook. Thus, the system was inherently inefficient.

Around this time, Choice moved from a purely telephone-based central reservation system to a Web-based system. Choice found, as did many companies, that letting customers serve themselves online saved time and money. Further, unlike many industries burned in the move to e-commerce, the travel sector is an ideal match for Web-based services. And the benefits

for travelers are striking. Customers can get an instant list of every room available with their chosen criteria. They can also view the hotel and, in some cases, the individual room. In addition, hotel rooms are a typical example of "distressed" products; like airline seats and theater tickets, they can't be stockpiled if left unsold. Thus, they are ideal for using last-minute special offers and promotions, which can be posted online or e-mailed to interested customers.

But all of these benefits require full integration between local reservation systems and the central reservation system. Choice decided to implement a franchise-wide IP network that provided every American hotel with a permanent connection to the central Profit Manager database. The most important criteria for this network were coverage and reliability. The network needed to reach every franchise and needed to be highly available. Capacity was not a particular concern, because updates and reservations use little capacity.

To meet its needs, Choice decided to go with a satellite network [HARL02, DORN01, UHLA00]. Even within the United States, reliable universal coverage requires expensive leased lines or dependence on switched networks that may not always deliver. The situation is far worse internationally. Satellite networks provide the universal coverage and are in fact more reliable than the competition. Satellites that use fixed dishes are a mature, dependable technology. Downtime averages only minutes each year.

For its initial effort, Choice went to Hughes Network Systems, which set up a dedicated IP network using two geostationary satellites based at separate hubs (Figure C10.1). The hub is a ground-based control center that includes a number of switches and routers. At the hub, Hughes separates Choice's traffic from that of its other customers and routes it accordingly. The Los Angeles hub covers the entire United States via a broad-beam satellite service. The Germantown hub controls a number of narrower spot

beams that service Alaska and Hawaii and provides extra capacity for major cities. Each hotel is equipped with a VSAT (very small aperture terminal) dish.

The satellite system has worked well, and Choice has gradually transitioned operational and administrative functions to the network. For example, data for settling accounts with travel agents and tracking the Choice Privilege frequent-stayer program are sent on the satellite network.

### Guest Internet Access

In 2004, Choice began implementing free high-speed Internet access for all guests in its Clarion Hotels and Comfort Suites, using 3Com equipment. The implementation uses an efficient combination of wireless and wired access within each hotel [3COM04, 3COM06].

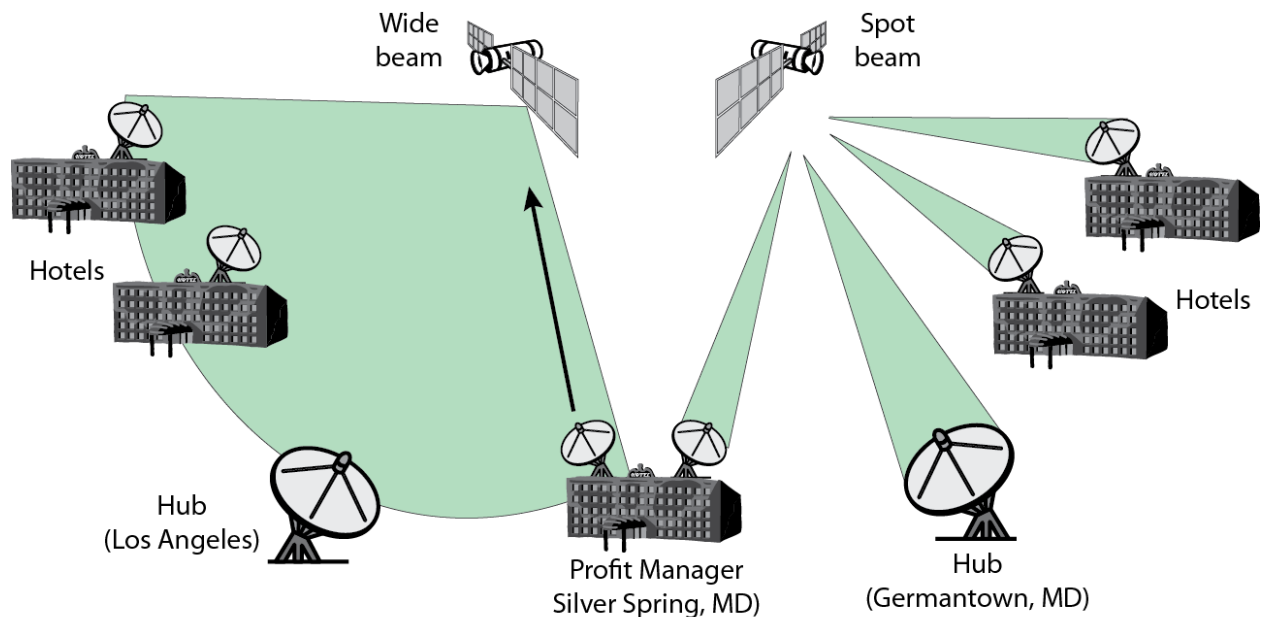


Figure C10.1 Choice Hotels U.S. Network

To be able to affordably provide Internet service, hotels have traditionally invested in expensive and disruptive construction, including the installation of additional cabling and forcing the closing of income-producing rooms. To recover their costs, some hotels charge their guests for Internet access – which is exactly the situation Choice Hotels wished to avoid. To allow its franchises to affordably fulfill its mandate, Choice Hotels needed a powerful, low-cost network solution that could be installed quickly and easily.

Access is provided in wireless and wired modes. For wireless access, each hotel implements Wi-Fi that serves all guest rooms. Using the 3Com Wi-Fi network, guests are able to check e-mail, exchange files, and browse the Web at speeds up to 54 Mbps. Built-in encryption and support for multiple security options help safeguard data as they travel over the wireless network. With each access point supporting up to 256 users, setting up conference room connectivity requires no additional wiring or IT assistance to provide ample bandwidth even to large groups.

Users without wireless capabilities can plug their laptops into 3Com wireless LAN workgroup bridges in guest rooms and hotel data centers for immediate connectivity.

## **Free-to-Guest Television Services**

In 2011, Choice International selected Bulk TV & Internet ([www.bulktv.com](http://www.bulktv.com)) as its television services provider for franchise hotel owners of the company's 11 brands [PRNE11]. Bulk TV, headquartered in Raleigh, NC provides satellite TV, Internet services, and bulk TV (Television plus Internet services). The company serves hotels, nursing homes, hospitals, correctional facilities, fitness centers, and the collegiate housing market. In addition to television programming, the company offers high-speed Internet access, virus control, bandwidth throttling, VPN support, managed data services,

Bulk TV & Internet is the leading provider of DIRECTV services to the hospitality industry. DIRECTV is one of the largest satellite television service providers in the United States; the Dish Network is its major competitor. Choice International's long-standing use of VSAT's and satellite-based communication services contributed toward their choice of Bulk TV & Internet for free-to-guest in room television programming. The wide range of HD programming, a la carte programming, 4/7 technical support, competitive monthly rates were also attractive features.

Bulk TV & Internet custom builds and installs each of its customers' systems and uses several enterprise-grade solutions, including fiber, T1, DS3 and carrier Ethernet to satisfy their Internet needs. Most of the systems that they build include remote monitoring capabilities that will notify the Tech Support Department at Bulk TV & Internet about connectivity issues before guests or residents are aware of any problems.

## Discussion Points

1. Perhaps the major drawback to a satellite-based system is latency. The delays can be noticeable on some online applications. Discuss what issues this might raise for the Choice suite of applications.
2. What issues is Choice likely to experience as it expands its network to full global reach?
3. Do some Internet research to identify the reasons why providers like Bulk TV & Internet use terrestrial circuits rather than satellite links to support Internet access for their customers. Why are terrestrial connections preferred?

## Sources

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**[DORN01]** Dornan, A. "Hotel Chain Reserves Room on Space Network." *Network Magazine*, January, 2001.

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**[PRNE11]** PRNewswire.com. "Bulk TV Awarded Qualified Vendor Status with Choice Hotels International. October 27, 2011. Retrieved online from: <http://www.prnewswire.com/news-releases/bulk-tv-awarded-qualified-vendor-status-with-choice-hotels-international-132689763.html>.

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